



CHAPTER 1

WATER SUPPORT

AIRLAND BATTLE

The mission of the US Army is to deter war. Failing that, its goal is to destroy the opposing force. Tactics and logistics are joined on the AirLand battlefield. AirLand Battle doctrine, which shows how the Army will conduct its combat operations, stresses the approach to take when fighting to maximize the potential of US forces. This doctrine stresses tactics, procedures, organizations, support, equipment, and training. Initiative, depth, agility, and synchronization are the directing points used in executing this doctrine. More detailed information on AirLand Battle is in FM 100-5.

COMBAT SERVICE SUPPORT

The ability of the Army to perform its mission rests on sound CSS planning, timely support, and proper use of CSS resources. The most critical resource is water.

Commanders and staff officers should know the capabilities of their CSS units, as well as the CSS assistance available from the next higher echelon. The CSS system develops and maintains maximum combat power by sustaining combat forces. It includes personnel, administration, religion, food, water, finance, legal, maintenance, medical, supply, transportation, and other personnel and logistical services and support.

The US Army may become involved in a conflict in either of the following scenarios in which water support will be required.

Forward-deployed

Support to forward-deployed US Army forces normally involves combined operations in which US forces, pre-deployed in a foreign country, operate

with allied nations in an established theater. NATO and Korea (Combined Forces Command) are examples of where US joint forces are forward-deployed in a foreign country where an established formal allied command structure exists and where HNS agreements are in being. PWRMS are in the theater, and the theater water support is established to support peacetime operations and allow for expansion to support wartime operations. The chance of conflict in this situation would be low. However, if a conflict did arise, potential losses of personnel and equipment could be quite high. The most likely threat would come from the Soviet Union's Warsaw Pact force and other armies equipped and trained by the Soviets. More information on Soviet doctrine, organization, and equipment is in the FM 100-2 series.

Nonforward-deployed

Support to nonforward-deployed US forces involves a contingency operation by which a joint US contingency force, with or without allied assistance, deploys and operates in a combat zone without a significant pre-established water support base. It is envisioned that this conflict will have limited objectives and be of short duration. However, planning for water support must include a follow-on buildup and sustainment capability to ensure US forces can perform the mission in the time required. This situation involves initial deployment of joint US forces to a country before or after the outbreak of hostilities.

THEATER ARMY WATER SUPPORT

A TA mission is to provide water support to Army forces in the theater. These forces include the corps, forces in the COMMZ, and other Army forces in the theater. Water support provided to the corps is chiefly GS while support to COMMZ units includes both DS and GS. The TA provides water support through its subordinate functional commands and through area-oriented commands.

The Army component of a US unified command responsible for water support to US Army forces in a theater of operations is normally the TA. TA water support is provided by subordinate groups, battalions, and CSS commands aligned and organized to provide water support. An important

element is flexibility. The TA has an organizational flexibility which allows for its expansion or change depending on the situations met in the conflict.

In joint operations, PWRMS may be austere in the theater and HNS agreements may not provide enough water resources. Contingency combined operations may afford nominal land or naval theater pre-positioning of water as well as implementing existing or hastily negotiated HNS agreements for water resources with the country or countries in the AO. In contingency operations, water support units are structured to permit situation dependent growth and maturity. This built-in flexibility enhances the Army component commander's capability to support the battle.

Each area command provides water support through subordinate area organizations and coordination with functional command organizations. The number and size of the area commands are initially determined by the size of the supporting force and the composition of the force to be supported. The nature of the operations, geographical features of the area, and known international boundaries also influence the number of area commands established in the COMMZ.

WATER SUPPORT RESPONSIBILITIES

The responsibilities of Army elements for water supply are covered in detail in AR 700-136. These responsibilities are briefly described below.

US Army Engineer School

The Engineer School compiles the water resources data base of surface water sources, potential ground water resources, and existing water supply facilities. It also produces water resources overlays for 1:250,000-scale maps for user commands. The Engineers assemble and deploy water detection response teams to detect potential ground water resources and select well drilling sites. They develop operational concepts, doctrine, tactics, organizational structures, training programs, and user materiel requirements for well drilling equipment. They also monitor testing and evaluation of materiel systems under development and monitor their procurement and fielding. Engineers develop policy for and operate water supply facilities at fixed

and semifixed installations. Tactical Engineer units drill and construct wells and provide construction support for water point improvements. They also provide diving support in the TA development of offshore water operations.

US Army Quartermaster School

The Quartermaster School develops operational concepts, doctrine, tactics, organizational structure, training programs, and user materiel requirements for water purification, storage, distribution, and cooling equipment. QM personnel monitor testing and evaluation of materiel systems under development and their procurement and fielding. They also conduct training programs on water supply doctrine and equipment. Tactical QM units provide potable water to supported units. Water Treatment Specialists (MOS 77W) conduct reconnaissance for raw water sources. They recommend potential locations for water treatment and supply points; make minor site improvements; and set up, operate, and maintain water purification, storage, and distribution equipment. They operate and maintain ground water well pumps and equipment and conduct routine tests of source and product water to adjust treatment processes and ensure potability. They also establish and operate PWS/DS and lay, operate, and retrieve TWDS.

US Army Ordnance School

The Ordnance School develops and conducts training programs for maintenance and repair of water purification, storage, and distribution equipment. The Quartermaster and Chemical, Equipment Repairer (MOS 63J) performs unit and intermediate direct and general support level maintenance and repair of water purification, storage, and distribution equipment.

US Army Academy of Health Sciences and the US Army's Command Surgeon General

The Academy of Health Sciences and the Command Surgeon General monitors preventive medicine water inspection programs, define degree of water treatment required, and approve treated water for distribution. The Preventive Medicine Specialist (MOS 91S) assists water purification units in water source reconnaissance, approves water sources, inspects water points, inspects potable water containers, and analyzes treated water to ensure water quality standards are met. When appropriate medical authorities are not available in the TO for potability certification of water supplies, the Senior Water Treatment Specialist (MOS 77W) will certify potability. This is to allow water to be issued to supported units as an interim action pending the arrival of qualified medical personnel. This authority is conditional on the drinking water having been treated by reverse osmosis water purification equipment and the chlorine residual maintained at 5 ppm. Sanitary engineers (SSI 68P) and environmental science officers (SSI 68N) of the Medical Department provide technical guidance on water treatment and water quality standards.

Logistics Staffs

The headquarters logistics staffs of the TA and subordinate commands project force water requirements, allocate water supply resources, provide water distribution schedules to supported units, and control water supplies and storage reserves.

Commanders

The commanders provide soldiers with safe drinking water and ensure they understand the dangers of drinking unapproved water. They also provide higher headquarters with water requirement estimates based upon climate-related consumption factors. Commanders ensure soldiers drink adequate amounts of potable water for the climate region and type of operation. They safeguard unit water supplies with good sanitation habits.